Listing of claims:

Claims 1-25 (Canceled).

26.   (New)   A process for managing temperature in a printer, comprising:

preprocessing a file into a plurality of swaths;

preprocessing each of the swaths into a plurality of cells;

calculating an estimated peak temperature for each printhead in printing each of the plurality of cells; and

printing the swath in response to the estimated peak temperature for each printhead in printing, each of the cells being below a predetermined maximum temperature.

27. (New) The process of claim 26, further comprising:

measuring the temperature of each printhead prior to printing the swath; and

employing the measured temperature as an initial temperature in calculating the estimated peak temperature for each printhead in printing a first cell of the swath.

28. (New) The process of claim 26, further comprising:

calculating an ink drop estimate for printing each cell; and

employing the ink drop estimate for printing each cell to calculate the estimated peak temperature for each printhead in printing each cell.

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29. (New) The process of claim 26, wherein calculating an estimated peak temperature includes:

estimating a number of ink drops required to print each cell;

determining a quotient of the ink drop estimate over a constant; and

5   adding the quotient to an initial temperature of each printhead.

30. (New) The process of claim 26, further comprising:

dividing a pass of each printhead in printing the swath into a number of sub-passes in response to the estimated peak temperature for any printhead in

10   printing any of the cells being greater than the predetermined maximum temperature; and

wherein a number of ink drops printed during each the sub-pass is substantially less than a number of ink drops printed during a pass.

15   31. (New) The process of claim 30, further comprising calculating the number of sub-passes by determining the number of sub-passes required to maintain a predicted temperature of each printhead below the predetermined maximum temperature.

20   32. (New) The process of claim 30, wherein dividing a pass further comprises printing the sub-passes in a height that is substantially similar to the printing pass.

33. (New) The process of claim 30, wherein dividing a pass further comprises:

reducing the number of ink drops printed during each sub-pass; and

performing a sufficient number of sub-passes to cause the ink drops to be printed during a total of each sub-pass to substantially equal a total number of ink drops to be printed during the printing pass.

34. (New) The process of claim 30, wherein dividing a pass further comprises printing the number of sub-passes, wherein a recording medium is not advanced between each sub-pass of the number of sub-passes.

35. (New) A system for managing temperature in a printer, comprising:

a memory;

at least one printhead, and

an adaptive thermal print swath servo ("ATPSS") module to preprocess a file stored in the memory into a plurality of swaths, each swath being further preprocessed into a plurality of cells, wherein the ATPSS module is further configured to calculate an estimated peak temperature for each printhead in printing each cell and to print the swath with the printhead in response to the estimated peak temperature for each printhead in printing, each cell being below a predetermined maximum temperature.

36. (New) The system of claim 35, wherein the ATPSS module is further configured to calculate an estimated ink drop density for each cell, wherein the estimated ink drop density is utilized to calculate the estimated peak temperature.

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37. (New) The system of claim 35, further comprising a temperature sensor, wherein the ATPSS module is further configured to measure the temperature of each printhead prior to and after printing each cell in the swath with the temperature sensor.

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38. (New) A computer readable storage medium on which is embedded one or more computer programs, the one or more computer programs implementing a method for managing temperature in a printer, the one or more computer programs comprising a set of instructions for:

15   preprocessing a printable file into a plurality of swaths, each swath being further preprocessed into a plurality of cells;

calculating an estimated peak temperature of at least one printhead in printing each cell; and

printing the swath in response to the estimated peak temperature, each

20 cell being below a predetermined maximum allowed temperature.

39. (New) The computer readable storage medium of claim 38, the one or more computer programs further comprising a set of instructions for

calculating an estimated density for the cell, wherein the estimated density is utilized to calculate the estimated peak temperature.

40. (New) The computer readable storage medium of claim 39, the one or more computer programs further comprising a set of instructions for calculating the estimated peak temperature from a sum of a product of the estimated density and a constant and an initial temperature of each printhead prior to printing each the cell.

41. (New) The computer readable storage medium of claim 38, the one or more computer programs further comprising a set of instructions for:

dividing a printing pass of each printhead in printing the swath into a number of sub-passes in response to the estimated peak temperature for any printhead in printing any of the cells being greater than the predetermined maximum temperature; and

wherein a number of ink drops printed during each the sub-pass is substantially less than a number of ink drops printed during a pass.

42. (New) A process for managing temperature in a printer, comprising:

preprocessing a file into a plurality of swaths;

preprocessing a selected swath of the plurality of swaths into a plurality of cells;

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calculating an estimated peak temperature for a printhead in printing at least one cell of the plurality of cells, the calculating step comprising:

estimating a number of ink drops required to print the at least one cell of the selected swath;

determining a quotient of the ink drop estimate over a constant;

adding the quotient to an initial temperature of the printhead; and

printing the selected swath in response to the estimated peak temperature for the printhead in printing, the at least one cell being below a predetermined maximum temperature.

43.   (New)   A process for managing temperature in a printer, comprising:

preprocessing a file into a plurality of swaths;

preprocessing a selected swath of the plurality of swaths into a plurality of cells;

calculating an estimated peak temperature for a printhead in printing at least one cell of the plurality of cells; and

printing the selected swath in response to the estimated peak temperature for the printhead in printing, the at least one cell being below a predetermined maximum temperature.

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44. (New) The process of claim 43, further comprising:

measuring a temperature of the printhead prior to printing the selected swath; and

employing the measured temperature as an initial temperature in calculating the estimated peak temperature for the printhead in printing the at least one cell of the swath.

45. (New) The process of claim 43, further comprising:

calculating an ink drop estimate for printing at least one cell of the selected swath; and

employing the ink drop estimate for printing the at least one cell of the selected swath to calculate the estimated peak temperature for the printhead in printing the at least one cell.

46. (New) The process of claim 43, wherein calculating includes:

estimating a number of ink drops required to print the at least one cell of the selected swath;

determining a quotient of the ink drop estimate over a constant; and

adding the quotient to an initial temperature of the printhead.

47. (New) The process of claim 43, further comprising dividing a pass of the printhead in printing the selected swath into a number of sub-passes in response to the estimated peak temperature for the printhead in printing the at

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least one cell being greater than the predetermined maximum temperature wherein a number of ink drops printed during each the sub-pass is substantially less than a number of ink drops printed during a pass.

5   48. (New) The process of claim 47, further comprising calculating the number of sub-passes by determining the number of sub-passes required to maintain a predicted temperature of the printhead below the predetermined maximum temperature.

10   49. (New) A system for managing temperature in a printer, comprising:
at least one printhead; and
an adaptive thermal print swath servo ("ATPSS") module to preprocess a file into a plurality of swaths, a selected swath being further preprocessed into a plurality of cells, wherein the ATPSS module is further configured to calculate

15   an estimated peak temperature for the at least one printhead in printing at least one cell of a selected swath and to print the selected swath with the at least one printhead in response to the estimated peak temperature for the at least one printhead in printing, the at least one cell being below a predetermined maximum temperature.

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50. (New) The system of claim 49, wherein the ATPSS module is further configured to calculate an estimated ink drop density for the at least one

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cell, wherein the estimated ink drop density is utilized to calculate the estimated peak temperature.

51. (New) The system of claim 49, further comprising a temperature sensor, wherein the ATPSS module is further configured to measure the temperature of the at least one printhead prior to and after printing the at least one cell in the selected swath with the temperature sensor.

52. (New) A computer readable storage medium on which is embedded one or more computer programs, the one or more computer programs implementing a method for managing temperature in a printer, the one or more computer programs comprising a set of instructions for:

preprocessing a printable file into a plurality of swaths, each swath being further preprocessed into a plurality of cells;

calculating an estimated peak temperature of at least one printhead in printing the at least one cell of a selected swath; and

printing the selected swath in response to the estimated peak temperature, the at least one cell being below a predetermined maximum allowed temperature.

53. (New) The computer readable storage medium of claim 52, the one or more computer programs further comprising a set of instructions for

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calculating an estimated density for the at least one cell, wherein the estimated density is utilized to calculate the estimated peak temperature.

54. (New) The computer readable storage medium of claim 53, the one or more computer programs further comprising a set of instructions for calculating the estimated peak temperature from a sum of a product of the estimated density and a constant and an initial temperature of the at least one printhead prior to printing the at least one cell of the selected swath.

55. (New) The computer readable storage medium of claim 53, the one or more computer programs further comprising a set of instructions for:

dividing a printing pass of the at least one printhead in printing the selected swath into a number of sub-passes in response to the estimated peak temperature for the at least one printhead in printing the at least one cell being greater than the predetermined maximum allowed temperature; and

wherein a number of ink drops printed during each the sub-pass is substantially less than a number of ink drops printed during a pass.